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NiceZyme View of ENZYME: EC 3.3.1.1

Official Name

Adenosylhomocysteinase.

Alternative Name(s)

Adenosylhomocysteine hydrolase.

AdoHcyase.

S-adenosylhomocysteinase.

S-adenosylhomocysteine hydrolase.

S-adenosylhomocysteine synthase.

SAHase.

Reaction catalysed

S-adenosyl-L-homocysteine + H(2)O <=> L-homocysteine + adenosine

Cofactor(s)

NAD.

Comment(s)

The NAD(+) cofactor appears to bring about a transient oxidation at C-3' of the 5'-deoxyadenosine residue, thus labilizing the thioether bond cf. EC 5.5.1.4.

Human Genetic Disease(s)

Hypermethioninemia MIM:180960

Cross-references

Biochemical

Pathways; map number(s) H3

PROSITE PDOC00603

BRENDA 3.3.1.1

PUMA2 3.3.1.1

PRIAM enzyme-specific profiles 3.3.1.1

Kyoto University LIGAND chemical database 3.3.1.1

IUBMB Enzyme 3.3.1.1

Nomenclature

IntEnz

3.3.1.1

MEDLINE

Find literature relating to 3.3.1.1

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<u>Q23255</u> , SAHH1_ARATH;	<u>P84533</u> , SAHH1_POPEU;	<u>P51893</u> , SAHH1_XENL
<u>Q9LK36</u> , SAHH2_ARATH;	<u>P50245</u> , SAHH2_DROME;	<u>O43865</u> , SAHH2_HUM
<u>P84532</u> , SAHH2_POPEU;	<u>O93477</u> , SAHH2_XENLA;	<u>Q96HN2</u> , SAHH3_HUM
<u>Q6FA43</u> , SAHH_ACIAD;	<u>Q9YEF2</u> , SAHH_AERPE;	<u>Q8UJ99</u> , SAHH_AGRT
<u>Q8YX05</u> , SAHH_ANASP;	<u>Q76757</u> , SAHH_ANOGA;	<u>O67240</u> , SAHH_AQUA
<u>O28279</u> , SAHH_ARCFU;	<u>Q64MT2</u> , SAHH_BACFR;	<u>Q8A407</u> , SAHH_BACT
<u>Q6G584</u> , SAHH_BARHE;	<u>Q6G1D6</u> , SAHH_BARQU;	<u>Q6MNC0</u> , SAHH_BDEB
<u>Q7WQX5</u> , SAHH_BORBR;	<u>Q7W1Z7</u> , SAHH_BORPA;	<u>Q7VUL8</u> , SAHH_BORP
<u>Q89HP6</u> , SAHH_BRAJA;	<u>Q8YE49</u> , SAHH_BRUME;	<u>Q8FXZ7</u> , SAHH_BRUS
<u>Q62G22</u> , SAHH_BURMA;	<u>Q63PT2</u> , SAHH_BURPS;	<u>P27604</u> , SAHH_CAEE
<u>P83783</u> , SAHH_CANAL;	<u>P35007</u> , SAHH_CATRO;	<u>Q9ABH0</u> , SAHH_CAUC
<u>Q8KEG8</u> , SAHH_CHLTE;	<u>Q7NZF7</u> , SAHH_CHRVO;	<u>P61456</u> , SAHH_CORD
<u>Q8FRJ4</u> , SAHH_COREF;	<u>Q8NSC4</u> , SAHH_CORGL;	<u>Q83A77</u> , SAHH_COXB
<u>Q72EH1</u> , SAHH_DESVH;	<u>P10819</u> , SAHH_DICDI;	<u>Q27580</u> , SAHH_DROM
<u>P61617</u> , SAHH_GEOSL;	<u>Q7NGI6</u> , SAHH_GLOVI;	<u>Q9HN50</u> , SAHH_HALS
<u>P23526</u> , SAHH_HUMAN;	<u>P36889</u> , SAHH_LEIDO;	<u>Q75FU8</u> , SAHH_LEPI
<u>Q8EXV1</u> , SAHH_LEPIN;	<u>Q9SP37</u> , SAHH_LUPLU;	<u>Q9SWF5</u> , SAHH_LYCE
<u>P50246</u> , SAHH_MEDSA;	<u>P93253</u> , SAHH_MESCR;	<u>Q8TRA5</u> , SAHH_META
<u>Q60CG8</u> , SAHH_METCA;	<u>Q58783</u> , SAHH_METJA;	<u>P58855</u> , SAHH_METK
<u>Q8PUQ4</u> , SAHH_METMA;	<u>Q6LYR8</u> , SAHH_METMP;	<u>O27673</u> , SAHH_METT
<u>P50247</u> , SAHH_MOUSE;	<u>Q7TWW7</u> , SAHH_MYCBO;	<u>Q9CCJ4</u> , SAHH_MYCL
<u>Q73UK6</u> , SAHH_MYCPA;	<u>P60176</u> , SAHH_MYCTU;	<u>P68172</u> , SAHH_NICS
<u>Q82WL1</u> , SAHH_NITEU;	<u>Q5YQS7</u> , SAHH_NOCFA;	<u>Q01781</u> , SAHH_PETC
<u>P50249</u> , SAHH_PHASS;	<u>Q710C4</u> , SAHH_PIG;	<u>P50250</u> , SAHH_PLAF
<u>Q12663</u> , SAHH_PNECA;	<u>Q7V9P3</u> , SAHH_PROMA;	<u>Q7V926</u> , SAHH_PROM
<u>Q7UZN3</u> , SAHH_PROMP;	<u>Q9I685</u> , SAHH_PSEAE;	<u>Q87V73</u> , SAHH_PSES
<u>Q9UYK5</u> , SAHH_PYRAB;	<u>Q8ZTQ7</u> , SAHH_PYRAE;	<u>P50251</u> , SAHH_PYRF
<u>O58275</u> , SAHH_PYRHO;	<u>Q8Y387</u> , SAHH_RALSO;	<u>P10760</u> , SAHH_RAT;
<u>Q98CM3</u> , SAHH_RHILO;	<u>Q92TC1</u> , SAHH_RHIME;	<u>Q7TTZ5</u> , SAHH_RHOB
<u>P28183</u> , SAHH_RHOCA;	<u>Q6N2N5</u> , SAHH_RHOPA;	<u>Q50562</u> , SAHH_RHOS
<u>Q9ZNA5</u> , SAHH_ROSDE;	<u>O13639</u> , SAHH_SCHPO;	<u>Q936D6</u> , SAHH_STRA
<u>Q82DC9</u> , SAHH_STRAW;	<u>Q8GGL7</u> , SAHH_STRAZ;	<u>Q9KZM1</u> , SAHH_STRC
<u>P26799</u> , SAHH_STRFR;	<u>P50252</u> , SAHH_SULSO;	<u>Q975T0</u> , SAHH_SULT
<u>Q8DGC8</u> , SAHH_SYNEL;	<u>Q7U9Y3</u> , SAHH_SYNXP;	<u>P74008</u> , SAHH_SYNY
<u>Q9HKX4</u> , SAHH_THEAC;	<u>O51933</u> , SAHH_THEMA;	<u>Q979Z4</u> , SAHH_THEV
<u>P68173</u> , SAHH_TOBAC;	<u>P51540</u> , SAHH_TRIVA;	<u>P32112</u> , SAHH_WHEA
<u>Q8PP84</u> , SAHH_XANAC;	<u>Q8PCH5</u> , SAHH_XANCP;	<u>Q9PEJ1</u> , SAHH_XYLF
<u>Q87E18</u> , SAHH_XYLFT;	<u>P39954</u> , SAHH_YEAST;	


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